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SELF CONCEPT CHANGE OF EDUCATION GRADUATE STUDENTS
AS A RESULT OF HUMAN RELATIONS TRAINING



by
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A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF EDUCATION
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, Alberta

SPRING, 1970

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UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Self-Concept Change of Education Graduate Students Through Human Relations Training" by Larry Krywaniuk in partial fulfillment of the requirements for the degree of Master of Education.

ABSTRACT

In 1954 Butler and Haigh reported a study in which they measured change in self-concept brought about by Rogerian client-centered counselling. Burke and Bennis in 1961 organized a similar study using sensitivity training rather than client-centered therapy.

The purpose of the present study was to investigate the findings of these studies using the course Educational Psychology 517 (Human Relations Seminar) as the treatment variable.

Four hypotheses were prepared predicting change in self-concept, adjustment, affection, control, and relationship of adjustment to self ideal congruence.

Data was collected by means of a pre-posttest on the S10 Q-sort and the FIRO-B from the experimental (treatment) group and the control group.

Analyses of variance and covariance were carried out and correlations were tested for significance of relationship and significance of change.

On the basis of this study, it was found that while several areas had changes reaching significance, the treatment resulted in essentially no difference. In areas where the groups seemed to have an original difference a relationship between real and self concept adjustment and real-ideal congruence was found at the posttest level.

ACKNOWLEDGEMENTS

The writer would like to express his appreciation to the following persons who offered their assistance in the writing of this thesis: Dr. P. Koziey for supervising the writing and for his understanding and patience; to Dr. T. Maguire and Mr. E. Buckley for serving on the thesis committee.

I would especially like to thank my family for their encouragement and faith, and to Eugene Romaniuk and K. Bay for their assistance.

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CHAPTER I

INTRODUCTION

One of the significant trends in recent educational development has been an emphasis on guidance and counseling in the schools in response to the increasing demands on the guidance and counseling services. The counselor, as a specialist in his field has been partially responsible for taking the initiative in bringing about this emphasis, perhaps because he is closest to the problems students have, and also perhaps because his awareness of the problems has become keener due to training. Although the professional counselor's role is varied, the task of helping people understand themselves is one of his major concerns. He is, in effect, a human relations expert.

Fromm (1955), in response to a hypothetical question, argues it is possible for a whole population to be psychotic, as the definition of sanity refers to the basic nature of man for its point of origin, and therefore is an absolute in this regard. In departure from psychoanalytic theory, however, Fromm believes that man is basically good and is intrinsically capable of correctly isolating and altering this deviation from sanity. This view of man allows Fromm to regard the individual as capable of living a happy, fruitful life dependent primarily on his own efforts.

Within the realms of education and psychology has evolved the practical psychologist - the person actually involved with changing a particular situation. In the school setting, this person is typically

called the Guidance Counselor. His main concern is with the value of the individual to himself and his attempt to become a fully functioning person.

One such psychologist is Carl Rogers. Rogers and his colleagues have developed a client-centered approach to counseling and personality change (Rogers, 1951). Central to the client-centered approach is that the individual has unique perceptions and beliefs about himself and the way he would like to be. Rogers (1951) postulates, in fact, that there is very often a discrepancy between the perceived self, or real self (R), and the perceived ideal self (I). Horney (1950), Sullivan (1953), Maslow (1954), Strang (1957), and others share Roger's feelings.

Accordingly, Rogers believes this real-ideal-self (R-I) discrepancy is an indicator of psychological adjustment and need for counseling. Client-centered counseling is aimed at reducing the discrepancy and thus improving the client's adjustment and increasing his capacity for functioning more meaningfully in his social environment.

Butler and Haigh (1954) seized upon the opportunity to study the self-concept discrepancy and developed an instrument based on Stephenson's (1953) Q-sort technique that enabled them to calculate a correlation representing this self-concept discrepancy. The instrument consisted of 100 "self-referrent" items drawn from a large pool of items which the subjects were asked to sort on a "forced-normal" continuum distribution ranging from "unlike-me" to "like-me" and "unlike-ideal" to "like-ideal".

Butler and Haigh hold that "a discrepancy between the self-concept

and the concept of the desired or valued self reflects a sense of self-dissatisfaction, which in turn generates the motivation for coming into counseling (p. 58)." The counselor then helps the client reduce his defenses and assimilate experiences into his personality in new conceptual patterns. Thus, the increase in congruence is operationally defined as the increase in correlation of self and ideal Q-sort distributions.

Client-centered theory also suggests that the ideal self, as it is anchored in general societal concepts should be more resistant to change than the real self. Empirically, the evidence is not as definite.

The results of the Butler and Haigh study suggested a significant increase in self-ideal correlation as a consequence of client-centered therapy and also that the group being judged "successful" by professional counselors, showed a more marked improvement than did either the control group or the "unsuccessful" group, shown also by a greater amount of increase in congruence as indicated by an increase in correlation.

Adjustment

Dymond (1954) in a follow-up study using the Butler and Haigh data, asked professional counselors to rate the same 100 items (referred to as the S10 Q-sort) into an ideal person sort. From this emerged a 74 item "adjustment scale" which consisted of 37 items placed on the negative or "unlike-me" side and 37 items placed on the positive or "like-me" side. The original distributions (sorts) of the subjects were compared to this derived scale. The adjustment score was simply the number of the 74 items which had been placed in the same end of

the distribution as the adjustment items by the person who described his real self. An examination of the external adjustment scores supported the postulate that the experimental groups improved significantly.

To Rogers' (1951) theory, and Butler and Haigh's (1954) and Dymond's (1954) studies must be accorded the status of pioneering works, if only for the research they have generated. Most of the literature in the area of self concept and self concept discrepancy eventually leads back to the above-mentioned works. Perhaps this is also the best indication of the influence this theory and these studies have had on counseling theory and practice.

Sensitivity Training

In the counselor's search for new and better techniques, he could not very well overlook sensitivity training, or, as it is variously named, T-group (training group), Group Dynamics, Human Relations Laboratory, or Basic Encounter Groups as a method of modifying behavior and attitudes. Burke and Bennis (1961) recognize the importance of groups:

An important goal of many groups is the induction of change in the people participating in the group experience. These changes may be of many types, including a wide variety of perceptual and attitudinal changes in the group members, the acquisition of new cognitive skills and information, and the modification of overt behavioral responses, both in the group, and, ultimately, in other social interaction settings in which the individual participates. Changes such as these are the raison d'être of both human relation training groups and psychoanalytic therapy groups, which seek to improve the individual's interpersonal responses by helping him toward better personal adjustment (p. 165).

Sensitivity training is based on the idea that group-membership

skills are learned and thus can be modified. The same skills are used for the modification of poorly learned skills as are used in the natural group environment. For example, people with difficulties in interpersonal communication would practice this skill in its elemental stages, aided and encouraged by the total group.

Purpose of the Study

The purpose of the present study was to determine whether sensitivity training could produce a change in the self concept and a reduction of the self-ideal-discrepancy as judged by the Butler-Haigh Q-sort and whether there is a relationship between adjustment and self-concept discrepancy.

Several researchers (for example Levy 1954; Chordorkoff, 1954) have studied the implications of the self-concept discrepancy. Both found there was a relationship between adjustment and self-concept discrepancy. Burke and Bennis (1961) attempted to validate the idea of the self-concept discrepancy and to isolate the dimensions in which the changes (if any) took place. One of the instruments used for this purpose was the FIRO-B (Shutz, 1958). Shutz and Allen (1966) worked directly with T-groups and the FIRO-B in a pre-post-test (RI-R'I') study and found changes particularly in the affection dimension.

It seems necessary, if we are to understand fully the changes that occur in a person, to understand the type of change, the amount of change, and the areas in which this change takes place.

Rationale for the Hypotheses

As in Butler and Haigh's (1954) study, the self-concept discrepancy is the motivating factor for change. According to client-centered theory (Rogers, 1951; Butler & Haigh, 1954), the individuals with the greatest amount of discrepancy should be the ones most motivated to change. Human relations training has the same basic orientation towards self-understanding and the development of unused potential as client-centered counseling, and should produce much the same change.

Since the ideal self seems to be anchored in the general social ideology to a greater extent than the real self, it should change less than the real self. Basic to the theory of client-centered therapy is the approach that the client, even in the most mentally disturbed cases (Schuldt & Truax, 1968), can be the source of direction and energy for the change. This change must, however, be consistent with the external ideals of what the change should be.

The investigator of the present study holds that a discrepancy between the perceived self and perceived ideal self reflects a dissatisfaction with the perceived self, and provides the motivation for change. This dissatisfaction would be reduced through human relations training. The self-ideal-discrepancies are the outcomes of experiences and feedback which indicate to the client that his self-organization is inadequate.

Human relations training is involved with the interpersonal dimension of human behavior and attitude and therefore the change that takes place in the self concept will be reflected in that area. Burke and Bennis (1961) found this to be true for the wanted control

and affection dimensions of the FIRO-B.

From the preceding theory and rationale, several hypotheses were formed.

Hypotheses

1. (a) There will be a significant difference in self-concept discrepancy between the group taking Educational Psychology 517 (T-groups) and the group taking Educational Psychology 571 (a regular graduate-level course), as measured by the Q-sort.

(b) The real self will change more than the ideal self.
2. There will be differences between the groups on the FIRO-B measure in the affection and control dimensions.
3. There is a significant relationship between the self-concept correlation and adjustment.
4. There will be significant improvements in both the ideal and real selves on the Q-sort measure as a result of human relations training.

Limitations of the Study

The original studies (Butler & Haigh, 1954; Dymond, 1954) used the pre-wait and post-wait methods for testing the stability of the self concepts and ideal self concepts over time, along with the changes that took place. With the present study, it was not possible

to use these techniques. However, Haas and Maehr (1965), as well as Butler and Haigh (1954), demonstrated that the results are stable over time.

Also, there was no opportunity to control either the duration or concentration of treatment as the sessions were scheduled much the same as regular classes. The length of reported T-group sessions varied from 45 minutes per session 3 times a week (Orsburn, 1966) to 2 hour-plus sessions daily for 3 weeks (Burke & Bennis, 1961). The experimental group for the present study met in groups of 10 or 11 for 2-1/4 hours once a week for 12 weeks.

The investigator had slightly less problem in establishing a control group as there were more people available in approximately the same overall situation. The difficulty came, however, in isolating enough people without previous experience with T-groups, to try to guard against possible biasing.

The groups available were night-credit students who attended after a day's teaching, and all but one or two were doing graduate work, mostly in counseling. The rather small experimental group (20) along with the homogeneity of the individuals with respect to their program or previous experience might make the results limited in their generalizability to other populations.

Some difficulty seemed to be experienced with test fatigue, as the tests required a considerable amount of time and mental effort. Although no record was kept, there seemed to be a difference between individuals in the amount of time spent doing the tests and perhaps, as a consequence, in the amount of self-involvement. The

groups, too, were somewhat involuntary in the Rogerian sense of self-referral to counseling, although they could choose to undergo testing or not.

CHAPTER II

SOME RELATED LITERATURE

The literature relating to the following areas will be reviewed in this chapter:

Literature related to the self concept.

Literature related to sensitivity training.

Literature related to the measuring instruments.

Summary and statement of position.

LITERATURE RELATED TO THE SELF CONCEPT

To quote Haas and Maehr (1965), "There is no question but that the concept of self, or some variant thereof, has once again become a key variable in psychological theory (p. 100)." The theory dealing with the self concept is very often related to the personal adjustment of the individual and to the source of a discrepancy between the real and ideal self. The literature related to the self concept and its relationship to adjustment seems to fall on a continuum ranging from "direct relationship" through "no relationship" to "relationships other than adjustment-discrepancy." With this preface in mind, Rogerian client-centered theory will be introduced as the source of the "direct relationship" end of the adjustment-discrepancy continuum.

Position of Rogers

Although Rogers did not invent the idea of the self concept as

such, he was among the first to view it as a primary determiner of behavior, and that the need to preserve and enhance this concept is one of man's basic motivations. The interest in the self concept throughout psychological history has taken many forms and "every theory has had to deal with the concept of self (Haas & Maehr, 1965, p. 100)."

Against the backdrop of Rogerian theory, we can view the self concept as a rather stable empirically derived determiner of behavior, and as an image which the individual tries to maintain even in the face of considerable pressure to change when his behavior is contradictory to it. Rogers feels that the pressure to change one's behavior is reflected in what is termed "a real-ideal-self-concept discrepancy." When this pressure or discrepancy becomes great enough, the individual refers himself to a counselor in an attempt to realign these concepts.

Rogers postulates that this discrepancy is a measure of the maladjustment the individual has; the greater the discrepancy, the greater the maladjustment. His client-centered therapy is aimed at reducing this discrepancy and thus increasing the adjustment of the individual.

Support for Rogers

Butler and Haigh (1954) and Dymond (1954) found support for the idea of self-concept discrepancy used as a measure of adjustment. Haas and Maehr (1965) state that earlier theorists suggested an individual's concept of himself was a direct response to the way

he had been treated by "significant others" and that today most theorists would agree that the individual's concept of self is functionally dependent upon the response of others.

In their study of 37 eighth-grade male students, Haas and Maehr found that changes in self-rating due to approval-disapproval treatment, on a scale developed expressly for the study, are stable over time and are dependent for some part on the dosage of treatment. The results supported the notion that change in self concept is durable over time both for approval and for disapproval.

Nahinsky (1956) in his study of 99 junior Navy officers found the self-concept congruence score to be a good discriminator between "career" and "non-career" officers and argues for the acceptance of this congruence as a valid measure of adjustment.

Turner and Vanderlippe (1958) found in their study of 175 students taking an introductory psychology course that students with higher self-ideal-congruence tend to participate more in extra-curricular activities, have higher scholastic averages, are given higher sociometric ratings by peers and have a higher adjustment rating.

Calvin and Holtzman (1953) concluded self-enhancement was inversely related to maladjustment, and the more self-deprecating the more maladjusted the individual was.

As Schuldt and Truax (1968) point out, even though a client may be a hospitalized mental patient, an institutionalized juvenile delinquent, or a psychoneurotic outpatient, "the clients' ideal self concept showed significantly greater adequacy, psychological health,

or adjustment than their current self concepts ... using ... the Dymond (1954) measure of the adequacy of adjustment (p. 159)," and they concluded from this that even severely disturbed clients do have "significant capacity for self-direction; their ideal self concepts are more closely related than their current self concepts to optimal adjustment (p. 159)."

Chordorkoff (1954a) found the better adjusted the individual was, the more accurate his self-description; also, the more adequate the individual's personal adjustment, the less perceptual defence he showed. Sweetland and Frank (1955) add that "... very well adjusted people have little need to actively deny aberrant behavior as part of their personality (p. 393)," and adjustment "... appears to be characterized by a rapport with the self environment (p. 393)."

As can be seen, the road between self-concept congruence and adjustment is not an easy one to follow, nor is it without its detours, backtracks, and its quagmires. In some cases, there is even doubt that the two are linked.

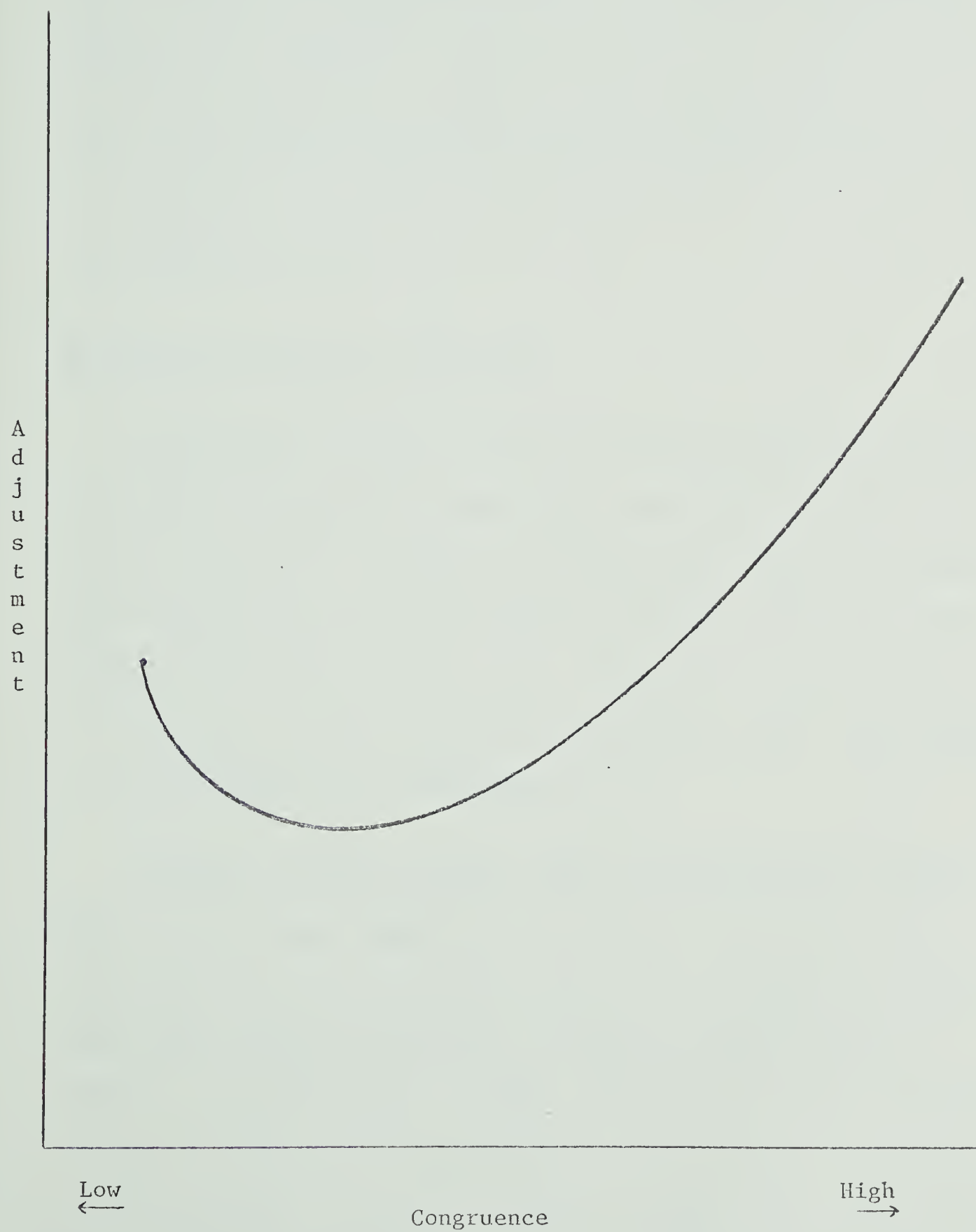
Modification of the Original Position

Although there is much support for Rogers' original idea of self concept and adjustment, many researchers have questioned the findings of these early studies.

Chordorkoff (1954b), in support of Rogers' position, states that the perceived self bears little resemblance to the ideal self at the outset of therapy, but that during the process of therapy the congruence is somewhat greater, and at the conclusion of therapy

FIGURE 1

CHORDORKOFF'S FINDINGS



the perceived self bears much relation to the desired self. However, he finds a curvilinear relation between discrepancy and adjustment in dealing with 30 males taking an introductory psychology course. Some of the individuals with the highest discrepancy scores actually had a better adjustment than some people with a lower discrepancy score. This relationship is plotted in Figure 1. To explain this situation he postulated two types of well-adjusted individual; one type who is satisfied and shows high correspondence of self and ideal, the other type who is dissatisfied and shows his motivation for change by a high discrepancy.

Meaning of Self-Concept Discrepancy

Levy (1956) was not convinced of the relationship between adjustment and self-concept discrepancy and, indeed, did find that the disparity "represents a tendency to perceive actual-ideal-discrepancies which transcend the particular aspect of the S's environment used as the object of description (p. 397)." The self-ideal-discrepancies of 21 volunteers correlated significantly with their real-ideal-hometown-concept discrepancies as postulated.

Kornseich, Straka, and Kane (1968) replicated Levy's study to show that self-image disparity is correlated with the way that a person sees the rest of the world. They find evidence to show that self-image disparity is partially a measure of mood and type of defense, and suggest that a variable referred to as "social competence" accounts for the rest of the variance. They feel that if a person is not interested in this as a research variable, that it be controlled, and then mood and defense measures replace the Q-sort as a source of

self-ideal-concept discrepancies.

There have been other studies (Bieri & Lobeck, 1961; Wylie, 1961; McDonald & Gynther, 1965) on the effect of demographic and sociological variables on the self concept. There were definite differences between high and low socio-economic class, between Catholics and Jews and also between sexes. McDonald and Gynther also investigated the effects of race and found some differences in self-concept discrepancies.

Block and Thomas (1954) suggest that much behavior becomes coherent when understood in terms of the ideal self toward which an individual aspires and his very personal evaluation of how close he sees himself to his ideal. After studying the responses of 56 students on the MMPI and a Q-sort, they stated that "We may accept the finding of self-dissatisfied individuals as maladjusted ... and that extreme self-satisfaction (high congruence), represents a denial of the 'human condition' and is therefore unhealthy (p. 256)." Block and Thomas concluded their hypothesis of a curvilinear relationship between adjustment and self-satisfaction was supported. However, they add:

Returning to the proposal of degree of expressed self-satisfaction as an index of psychotherapy, we can now see why this measure by itself is too simple and may be misleading. An individual may come to psychotherapy with intense feelings of personal dissatisfaction ... (p. 259).

They felt that with "supportive" therapy a client's level of self-satisfaction or self-esteem may be quickly raised and therefore the idea of self-satisfaction is only of limited relevance, and not indicative of real change.

Varying Reliability

With regard to the self concept, Frank and Hiester (1967) found there were no significant differences for influences by sex, but also that the ideal self concept showed greater changes for males than for females and had differential stability over time in the 80 males and 80 females they studied. They concluded:

It can be seen, therefore, that the ideal self concept appears to be somewhat less stable (or reliable) over time than the self concept, and the ideal self concept appears to be more greatly influenced by the factor of sex than the self concept (p. 357).

Although these changes were not dramatic, Frank and Hiester also concluded that:

... the interpretation of these discrepancy changes should be attenuated by the fact of their somewhat different reliability. Some changes in the ideal self discrepancy should be expected as a natural phenomena, and not all the changes in the self-ideal-discrepancy an investigator obtains in his data should be attributed to the experimental conditions (p. 357).

Williams (1962) and Catron (1966) both found there was a significant change in the self-adjustment scores whereas the ideal-person-adjustment did not change significantly.

Studies at Variance

Other researchers suggest other possibilities for the relationship between the self concept and adjustment.

Worchel and McCormick (1963) in their study on dissonance reduction in the self concept reviewed the factors involved in creating and reducing dissonance. Variables such as; influence on group decisions, esteem, hostility, threat, attitude towards the inconsistency, resistance

to change, confidence in the belief, and support of others, when manipulated all contribute to changing the various amounts of cognitive dissonance. This seems to suggest more evidence for the idea that one's self concept is a product of other's opinions, attitudes and behavior. Indeed, self concept seems to be a function of some form of group dynamics or group processes, the concluded.

Worchell and McCormick add: "Investigations ... have shown that high discrepancies between self and ideal generally indicate an insecure, anxious and self-deprecating individual ... (p. 89)." Accordingly, persons with medium discrepancy seem best adjusted according to test results and their ability to maintain effective problem-solving behavior under threat. On the other hand, persons with low self-ideal discrepancies tend to indicate individuals who are "maintaining a facade of adjustment using repressive defenses but with latent hostility (p. 589)."

In the Worchel and McCormick study, 60 male undergraduates were used to substantiate the idea of an optimal amount of dissonance (discrepancy) in the self concept. This, too, suggests a curvilinear relationship, but it seems this relationship may be the inverse of the one suggested by Chordorkoff (1954a), and is the sum of scores on many different dimensions.

Achenbach and Zigler (1963) and Katz and Zigler (1967) suggested that real-self-ideal discrepancy is not related to adjustment as Rogers suggested, but instead to maturity. Also, they suggested that age; more specifically mental age, is related to the self-image disparity, as would be consistent with Werner's or Piaget's ideas of child development. To test their postulates they selected 120 children

from 5th- 8th- and 11th-grade classes and administered the Otis Quick-Scoring Mental Ability Test to them, along with a scale of self-esteem developed by Coopersmith (1959), and a list of 20 adjectives which were scored on a yes-no basis. They found real- ideal-self discrepancy to be a function of both chronological age and IQ. From this they conclude real- ideal-self discrepancies would be better used as indices of development rather than measures of maladjustment.

Coopersmith (1959) found that large self- ideal-discrepancies were also related to high need achievement and to high actual-achievement, and Brownfain (1952) found that college students with more stable concepts did not receive as high grades as students with more unstable self concepts.

Katz and Zigler (1967) also feel that according to a developmental framework "increasing self-image disparity would invariably appear to accompany the attainment of higher levels of development, since the greater cognitive differentiation found at such levels invariably leads to a greater capacity for self-derogation, guilt and anxiety (p. 194)," and as Achenback and Zigler (1963) point out, this is not a blessing as although the individual is better equipped to deal with whatever problems arise, his greater cognitive differentiation gives him the capacity to create or construct more problems for himself.

Katz and Zigler adequately expressed this sentiment when the wrote:

Perhaps a judicious conclusion ... would be that future investigators should be more cognizant of developmental factors when interpreting self-image disparity findings and should expend some energy in determining how the psychodynamic factors ... interact with the developmental phenomena investigated ... (p. 194).

Summary

Although it is difficult to make any one clear-cut statement about the direction in which the literature dealing with the self concept points, perhaps the best summary would be to restate the major position with some of its major variations.

The theories using the self concept seem to have established themselves as important and influential aspects of the quest for a unified psychological theory. These theories use the self concept as their central theme and build their variations around this theme. One of the more popular figures in the field is that of Carl Rogers. His idea of client-centered psychotherapy based on modification of the self concept has gained wide-spread acceptance and has generated much related study. Roger's idea of the self viewed as a fluid and dynamic pattern of perceptual self-referrent statements, has allowed counsellors to take a positive view of the nature of mankind and has allowed counsellors, although they are sometimes instrumental, to take a supportive and somewhat secondary role in the therapeutic situation.

The Rogerian approach has allowed the individual to be the source of energy and direction for his own change, as the ideal self tends to be better adjusted than the real self, even in the most severely maladjusted cases. Roger's view of self-ideal discrepancies seen as being indices of adjustment or maladjustment is central to the client-centered approach to counselling, as it supplies the reason for change and the motivation for self-referral to counselling.

As with most other new ideas, interested researchers have attempted to explore, formalize, rigorize, disprove, or invalidate the client-centered approach, particularly in this case, the self concept versus adjustment postulate. The amount of research on this topic tends to indicate the esteem accorded this innovation.

By far, most of the literature seems to indicate the existence of a relationship between self concept congruence and adjustment. Researchers have taken various positions as to the nature and meaning of this relationship. Some researchers have found support for the original contention of a straight-line and/or direct relationship. Others, although in general agreement, have found a curvilinear relationship. Still others have investigated other factors involved and have found some relationship to sex, religion and race differences; varying reliabilities of the self and ideal self measures; and in some cases, no relationship. Another suggestion was that the measure is much too simple and that more cognizance should be paid to other factors and to developmental phenomenology before a statement of position is made.

If, from this, only one thing is clear, it is that more work using more sophisticated approaches and controls is needed.

SENSITIVITY TRAINING

From a rather modest beginning in Bethel Maine in 1948, sensitivity training has blossomed into an activity that is reaching into the lives of many people in North America today, in some form or other. Under various titles, this training varies from experimenting by in-

formal groups, to "workshops" or "week-ends" led by professional counsellors. The amount of time spent, the physical environment, the number of people, and the type of people, along with the purpose for the group encounter are just some of the variables present in the different forms of sensitivity training. All, however, have one major point in common: They demand a great quantity of personal involvement.

Reasons for T-groups

One of the more popular reasons for holding a group session seems to be to increase the amount and quality of interpersonal sensitivity between the people involved. It is hoped that the increased sensitivity will enable the individual to live a more satisfying life in his everyday surroundings.

Many professional people feel that sensitivity training lives up to these hopes, while others are not as certain, to state it mildly; but in any case, the popularity of these groups suggests the participants feel they are worthwhile and enjoyable. One of the tasks of researchers is to discover the real truth about sensitivity training and encounter groups.

Because this group work practically originated in the psychologist's laboratory, its history is well documented. Research work was started early and new trends spread quickly. Although specific techniques differ, the emphasis on the present and on the development of human potential is fairly common.

Support for T-groups

Burke and Bennis (1961) found that a significantly great proportion of T-group members increase in self-satisfaction with perceived group behavior. They also found a significant increase in perceived actual and ideal congruence, and a significantly greater change in the perceived real self than in the perceived ideal self. Their reasoning was:

Now the T-group, in theory and in practice, spends a major amount of time in analysis of 'here and now' behavior in the group, emphasizing feedback about and evaluation of actual member behavior; a much smaller proportion of time is spent in analyzing characteristics of an 'ideal' group member ... In attempting to predict differential changes in perception of actual and ideal self, it seems reasonable to assume that the variable figuring most in the overt concerns of the group members would be most susceptible to perceptual change; it was therefore predicted that perceived actual self would change more than perceived ideal self (p. 167).

This relationship between one's perceived actual and ideal self has been used as an index of 'adjustment' or 'self-satisfaction'. Carl Rogers (1951, 1952; Rogers and Dymond, 1954), J.J. Brownfain (1952) to name just two, have demonstrated that a low discrepancy, (or high positive correlation) between perceived ideal self and perceived actual self is correlated with independent measures of personal adjustment, and Rogers has also shown that this discrepancy between self and ideal self decreased during the course of successful therapy. To the extent that the human relations training group is a "quasi-therapeutic setting (Burke & Bennis, 1961)," self concept changes should be found among members of these groups; in fact, this is often stated as goal of the T-group. Orsburn (1967) used sensitivity training with high school students and found significant classroom behavior changes. Bennis et al. (1957) did not find self concept

with undergraduates, however Burke and Bennis (1961) confirmed Rogers' original position but using a T-group situation.

Burke and Bennis, in their summary, state:

Studies of individual adjustment have indicated increasing similarity between perceived actual self and perceived ideal self during the course of successful therapy, small group theory and research have postulated increasing conformity or congruence of perceptions, among group members or time. Human relations practitioners have claimed that these various changes occur in members of training groups (p. 181).

Miles (1960), however, discovered "the learner's explicit desire for change was not related to gain from the experience; if anything the relationship was inverse. From other evidence ... we believe a high wish to change ... was a kind of defensive protestation (p. 305)." Miles developed a model to describe his findings (Figure 2).

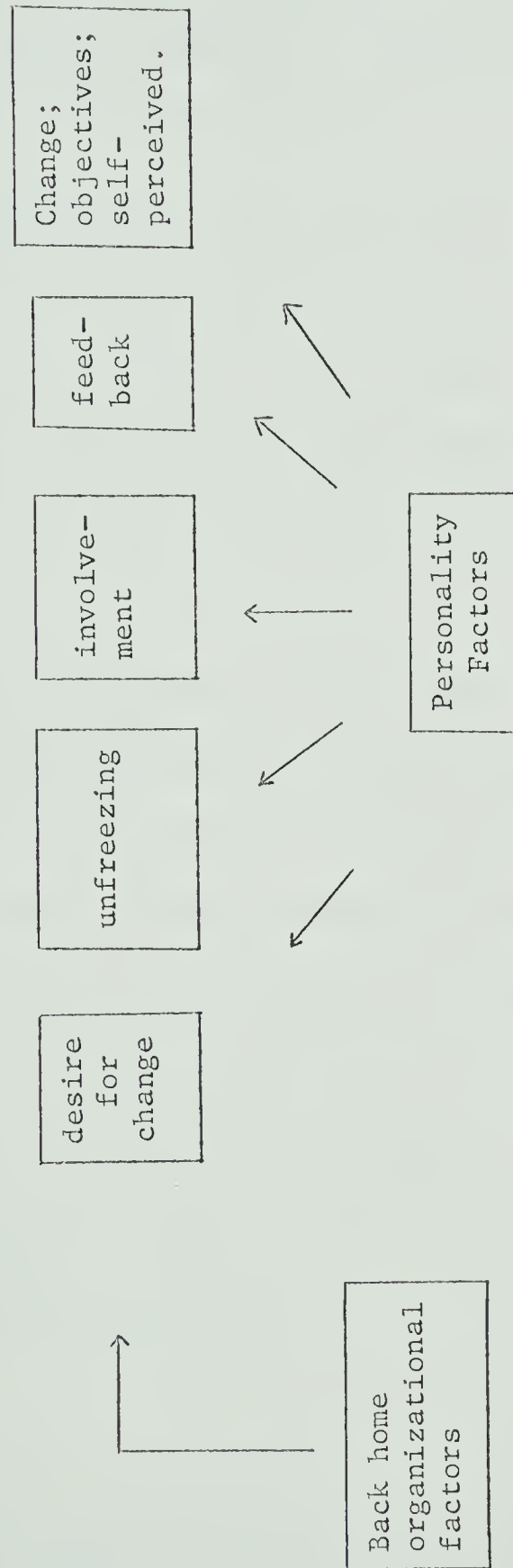
Burke and Bennis (1961) asked 84 participants from 6 different National Training Laboratory groups to use 19 bipolar adjectival rating scales to describe three concepts:

- a) The way I actually am in this T-group,
- b) The way I would like to be in this T-group, and
- c) Each of the other people in this T-group.

Changes were in the direction of greater agreement between actual and ideal self descriptions and toward subjects seeing themselves as others would see them. However, as Gassner, Gold and Snadowsky (1964) point out, there is a danger in not using a control group (as in the Burke & Bennis study), as although the experimental group in their study tended to change in the hypothesized direction, so did the control group, and there was no difference between groups on the post measure.

FIGURE 2

MILES' MODEL (p. 203)



Areas of Change

It seems relatively well established that the way in which an individual sees himself may very well be altered as a result of T-group training. However, there seems as yet, little evidence to show that the T-group is superior in making this change to other treatments, say, the passage of time.

One of the dimensions that the T-group is involved with is interpersonal sensitivity (Campbell & Dunnette, 1968; Shutz & Allen, 1966; Burke & Bennis, 1961). It would seem to be of value to be able to determine exactly where these changes do take place. For this purpose there are several instruments and theoretical positions available.

Shutz and Allen (1966), with their use of the FIRO-B, found there were greater differences in the pre- and posttest scores for the experimental group than for the control group suggesting that T-groups did change attitudes toward interpersonal skills.

Baumgartel and Goldstein (1967) discovered changes, particularly on the wanted control and wanted affection domains of the FIRO-B. Burke and Bennis (1961) also found changes in the control and affection area of the same instrument, with the variable of inclusion not being significantly altered.

Problems

It becomes evident from the problems cited in research articles, the difficulty in investigating the effects of T-groups is mainly due

to the extreme number of variables to control. One of the major problems is that very seldom a complete assessment of the goals, techniques, and trainees is given. Perhaps the greatest difficulty arising from this aversion is the setting up of comparable situations and in obtaining the resulting replications. It appears the only way, at present, the effects of T-groups can be assessed is simply by weight of evidence. Later, with the advantage of hindsight, it should be possible to isolate the trends and values to a much greater extent.

Varying Views

With respect to behavioral changes, some researchers feel it is not possible to specify the particular aspects that change. For example, Bunker (1965) resents the idea of there being a 'typical' type of change due to T-group involvement. Instead, he suggests the change taking place is unique on any set of behavioral dimensions. This, indeed, argues for more studies involving individual differences, for it is almost certain that the outcome of a training group is at least the interaction of these differences with the other variables. It might also be possible the reintegration process is not complete at the end of the training session, as it is with the more traditional counselling processes, and carries on for some time after the T-group has disbanded, although Orsburn (1967) does not support this contention in his study. Campbell and Dunnette (1968) strongly argue for more intensive research in this field, particularly in specifying behavioral outcomes, individual differences, T-group methods and interaction of T-group training and other learning experiences. They also suggest

more "payoff" studies, for instance, to discover whether an internal change necessarily guarantees an external behavioral change.

Campbell and Dunnette conclude that "for the time being, the T-group must remain a very interesting and challenging research area, which is where the energies of its proponents should be applied."

Relationship of Self- Ideal Congruence to Groups

Byrne (1961) suggests that either low or high self- ideal- congruence might be associated with a characteristic mode of defensive style. Low congruence would be associated with individuals who are self-rejecting and who use sensitization defenses as a primary mode of adaption. High congruence would be associated with individuals who use avoidance, denial or repression styles of defense. If moderate self- ideal- congruence is associated with individuals who use both, their behavior might be more flexible.

On the other hand, Block and Thomas (1955) believe that high congruence means "overly integrated" and suggest that adjustment versus self-satisfaction as represented by congruence, was best explained by a curvilinear relationship. They did find, contrary to Rogers, that high congruence was correlated with high scores on some scales, and low congruence was related to avoidance, denial, and suppression and not adjustment. Cole (1967) also feels moderate congruence is more suggestive of adjustment.

In a slightly different vein, Ohlsen (1963) believes group processes, primarily group counselling, provides students an oppor-

tunity to discover:

1. that his peers have problems too;
2. that, in spite of his faults, his peers will accept him;
3. that at least one adult, the counsellor, can understand and accept him; ...
6. that by talking with a trusted group of peers ... he can better understand and accept himself and others and develop the will and self confidence to act.

Summary

In summary it can be said that much of the support and criticism applying to the self concept can also apply to sensitivity training. Much of the theory and practice is overlapping and much of the research involves both concepts. The self concept, however, does seem to be a narrower concept than sensitivity training as it is only one aspect of the person and is the culmination of all the experiences he admits to his conceptual pattern, whereas sensitivity training involves alteration of the self concept but also experiences his peers have of him, but keep to themselves.

There is also more emphasis on interpersonal and affective behavior in group settings than the individual usually places in his interactions with himself, and an opportunity to learn about himself and his reactions in a unique situation; one in which others attempt to provide a mirror to his own inner self, as they see him.

Human relations training gives all indications of being a powerful therapeutic agent and research tool, but one that is very definitely in its infancy. Part of the problem in dealing with human relations training is that there are a great number of complex variables, and as yet, there is no well defined approach which could be used to

underly all group research.

One thing is apparent: The group phenomena is with us to stay. To all appearances, the T-group is enshrouded by a somewhat murky veil; one which researchers are yet unsure how to pierce, but all agree some interesting findings will emerge. Much clarification is necessary before human relations training can be accepted and utilized as a general technique in psychology, and more specifically, psychotherapy.

LITERATURE RELATED TO THE MEASURING INSTRUMENTS

Although research dealing with the self concept and methods and areas of change has been dealt with in the preceeding sections, little has been said about the actual source of measurement for the studies presented.

Predominantly, the self-ideal-discrepancies were derived from the use of a measuring instrument known as the Q-sort (Stephenson, 1951).

Origin of the Q-sort

Before 1948, the Q-sort was used almost exclusively by Stephenson. When he came into contact with Carl Rogers the technique became more extensively used, especially as a measure of personality change. Butler and Haigh (1954) used a Q-sort which they developed especially for their study in an attempt to demonstrate the effectiveness of client-centered counselling. Until this time, few people had con-

cerned themselves with the statistical trappings of this technique. Since then, however, several investigators and theorists have taken it upon themselves to explore this area and bridge the lacuna in our knowledge.

Support for the Q-sort

Turner and Vanderlippe (1958) substantiate the assumptions which generally underly Q-methodology. They feel that the assumption that satisfaction or concern of an individual with his phenomenal self as an operationally definable datum of great import in the area of adjustment, is justifiable. In addition, the discrepancy between the placement of a given characteristic on the self scale and the ideal scale can be taken as indication not only of the way in which an individual perceives himself as possessing this characteristic, but also the degree to which he values this trait.

Successful therapy, therefore, should be accompanied by a reduction in the self-ideal-discrepancy and also, the real self should change most since the ideal self concept seems to be anchored more in society's values.

Edwards (1955) believe there is a high correlation between Q-sort distributions and social desirability, but this belief does not seem at variance with the general idea of what the self should be like. In fact, Truax, Schuldt, and Wargo (1968) partial out the effect of social desirability and still find evidence to support the contention that the discrepancy is an indicator of personal adjustment.

There has also been some discussion of the actual mechanics of the measuring instrument. Quarter, Kennedy and Laxer (1967) state: "Therefore it appears that the correlation between self and ideal sorts is independent of the order in which the tests are given." This is also supported by Frank and Hiester (1967). Jones (1956) reported that no single form of the Q-sort was preferred, and he concluded the results were, therefore, not valid unless the sorter could choose the number of items he placed in any one category. Nichols (1963) concluded since no one form was preferred, researchers should use a rectangular distribution to obtain the maximum number of discriminations.

Support for a Forced Distribution

More recently, Hess and Hink (1965) showed results did not differ significantly on free or forced normal distributions and Block concluded "in the various comparisons, the forced Q-sort appeared equal or superior to the natural, unforced Q-sort method (1966, p. 492).

It had been the belief that freedom was necessary for subjects in the administration of Q-sorts. Research, however, has indicated the results are similar regardless of which procedure is used -- consequently the forced-normal distribution is employed as it has certain statistical advantages.

Other Factors

Different researchers have chosen a variety of sizes and content

materials for their Q-sorts. Although Q-sorts have been constructed with as few as 30 items and as many as 150 items, Block (1966) suggests that a number between 70 and 100 provides the optimum number of items for a careful relaxed sorting.

There are basically two main types of sorting procedures -- self-description, and description by others. The more common type is the self-sorting type; used mainly for discovering changes in attitudes, values, and personality by means of a correlation calculated between two or more Q-sort arrays. Some investigators have explored the possibility of a single sorting procedure employing multifactor designs in the construction of their array of items. Neff and Cohen (1968) have provided a guideline for designing and controlling the structure and internal consistency of Q-sort arrays, which can increase the utility and sensitivity of the measuring instrument, they feel.

Block (1955, 1961) has been one of the pioneers in the other type of sorting procedure -- sorting by experts. He uses this technique in the California Q-sort, which is an instrument of his own design (1961). He published a book (1961) which deals with the California Q-sort as well as the basic theory, design, application, statistical treatment and techniques of Q-sorts. Block's Q-sort is used mainly by psychologists in researching mental illness.

FIRO-B

The FIRO-B is an instrument based on Shutz's (1958) three dimensional

theory of interpersonal relations. It consists of 54 items divided into 6 equal categories namely: expressed inclusion, wanted inclusion, expressed control, wanted control, expressed affection, and wanted affection; usually abbreviated e^I , w^I , e^C , w^C , e^A , w^A .

The nine items in each sub-scale are graded from "very acceptable" to "not acceptable" on a continuum. The assumption is an individual will accept items up to a certain point along the scale and reject the rest. An individual's score is simply the number of items he accepts on each scale. Shutz reports that just from the number of items accepted, he can predict the specific items chosen at a 0.9 probability level, or greater. In this way Shutz demonstrates the reliability of the FIRO-B.

The specific contents of each scale can be found in Table I. (Shutz & Allen, 1966).

TABLE I
CONTENTS OF FIRO-B SCALES

Area	Expressed (e)	Wanted (w)
Inclusion (I)	I initiate interaction with people	I want to be included
Control (C)	I try to control people	I want people to control me
Affection (A)	I act close and personal toward people	I want people to get close and personal with me

SUMMARY AND STATEMENT OF POSITION

A review of the world situation today might leave one to assume several meta-factors present in shaping the general nature of our society's individual:

1. The technolization of our society causes the individual's role and contribution to be minimized or overlooked, resulting in a loss of potential room for self-expression.
2. The social and economic conditions are creating a situation in which large families are at least inconvenient, if not impossible. Family ties are not as well formed and its members feel less involved. A person thus could lose an important opportunity for his impulses of creativity, feelings of worthwhileness, and sense of involvement and belonging. Fromm (1955) feels this is a prime reason for the neuroticism of our times.
3. Due to the physical lack of frontiers, the people who "don't fit" have very little room to expand into and therefore must learn to adapt and assimilate or be separated and rehabilitated by expensive, time-consuming and tedious processes.
4. Statements of morality that have long been held as 'fact' are now being questioned. The lack of a definite point of reference can be confusing and frightening, especially to individuals in their formative years.

5. Increases in the technological aspect of mass media have made people more aware of unfortunate and unjust social situations. The inability to act positively in the face of these conditions can be frustrating to the individual.

The world, for all its advances, can be a difficult place to live in.

One of the counsellor's objectives is to aid the individual in functioning more adequately in the world that surrounds him. The fully functioning person, according to Rogers (1962) would be:

... fully open to his experiences and would have access to all of the available data in the situation, on which to base his behavior; the social demands; his own complex and possibly conflicting needs; his memories of similar situations; his perceptions of the uniqueness of this situation. The data would be very complex indeed. But he would permit his total organism, his consciousness participating, to consider each stimulus, need and demand, its relative intensity and importance, and out of this complex weighing and balancing, discover that course of action which would come closest to satisfying all his needs in the situation ... The defects which in most of us make this process untrustworthy are the inclusion of information which does not belong to this present situation, or the exclusion of information which does. It is when memories and previous learning are fed into the computations as if they were this reality, and not memories and learning, that erroneous behaviorial answers arise. Or when certain threatening experiences are inhibited from awareness and hence are withheld from the computations or fed into it in distorted form this too produces error. But our hypothetical person would find his organism thoroughly trustworthy, because all of the available data would be used, and it would be present in accurate rather than distorted form. Hence his behavior would come as close as possible to satisfying all his needs -- for enhancement, for affiliation with others, and the like.

In this weighing, balancing and computation, his organism would always give the best possible answer for the available data, but sometimes data would be missing. Because of the element of openness to experience, however, and errors, any following of behavior which was not satisfying, would be quickly corrected. The computations, as it were, would always be in process of being corrected, because they would be continually checked against their consequences (pp. 27-28).

Much of a person's dealings with his environment is of an interpersonal nature. The fully functioning person's social behavior is summarized by Shutz and Allen:

The basis of the T Group is realism. Through uncommonly honest expression of feelings, people help one another to be more realistic about themselves and the reactions of others to them. By this honest expression, people glimpse the interpersonal underworld that lies beneath human reactions. Hostile feelings, usually covered with the veneer called tact or politeness, are revealed as they occur. Feelings which usually turn out to be even more difficult to express -- warmth and affection -- are also exhibited and examined.

Such honesty is usually extremely difficult to achieve, even in the T Group, and is ordinarily very painful, which is probably the reason our everyday life is not characterized more by such interaction. But the result of this type of openness seems to be richer and more satisfactory human relations than are ordinarily experienced. The laboratory was replete with incidents in which people recognized, for the first time, hostile or tender feelings within themselves, expressed feelings that had been suppressed for years, and felt the pleasure of giving and receiving warmth. The overwhelmingly positive responses reported above regarding enhancement of personal relations attest to an enrichment of living.

In a sense, encouraging honesty and reality in our interpersonal relations is antithetical to many trends in our culture. The frequent emphasis on appearance, "images", and public relations and on the norms of tact, diplomacy, politeness, and control of feelings represents a different approach to human relations. Perhaps the rapid spread of the T Group now underway in industry, government, education, and the professions will have an impact on society by encouraging more openness, realism, and honest expression of feelings and by discouraging facades and customs constructed to hide or distort psychological reality (pp. 283-84).

CHAPTER III

PROCEDURE

THE SAMPLE

The sample for this study consisted of two groups; the experimental or treatment group, and the control group.

The Experimental Group

The treatment group consisted of 10 males and 10 females taking Educational Psychology 517 as a night-credit half-session course during the second part of the 1968-69 university term. All but one or two of the subjects were full time teachers working for credit towards a graduate degree or diploma in counselling.

The average age of the subjects was 33.75 years, with a range of 23 to 58 years.

This course was essentially a training group situation, with no grading other than a pass-fail being assigned by the professor.

The Control Group

This group consisted of 13 males and 5 females taking Educational Psychology 571 under the same conditions as the experimental group. Both classes were held at the University of Alberta at Edmonton.

These 18 people were selected out of a larger population with the specification that they had not undergone sensitivity training. This

group was relatively similar to the experimental with respect to previous educational experience and registered program. The average age was 33.80 with a range of 23 to 46 years. Educational Psychology 571 was a regular graduate course and its members were assigned marks based on their course work.

THE INSTRUMENTS

The S10 Q-sort (Butler & Haigh, 1954) is composed of 100 self-referrent items printed on individual cards for ease of sorting. Subjects were instructed to sort the items first to describe their perceived real self and then to resort them to describe their perceived ideal self. The items were sorted into a "forced-normal" distribution consisting of 9 categories ranging from "unlike-me" at one extreme to "like-me" at the other extreme. These 100 items were distributed into the 9 categories according to the following schedule:

	Least like me					Most like me			
File number	1	2	3	4	5	6	7	8	9
Number of cards	1	4	11	21	26	21	11	4	1

The subjects were asked to record their distributions on the sheets provided, after each sorting. This procedure was used for both the pre- and posttesting.

A complete listing of the items comprising the S10 A-sort can be found in Appendix A.

The FIRO-B (Shutz, 1958) is an instrument consisting of 54 items divided into 6 Guttman sub-scales of 9 items each. The questionnaire

was taken after the Q-sort was completed, and the responses were recorded on separate answer sheets. Both the FIRO-B and the answer sheet can be found in Appendix B.

Both the control and experimental groups underwent pretesting at the same time on the same day and posttesting within several days of each other.

TREATMENT

Educational Psychology 517 was conducted as a sensitivity training group with the same basic orientation as most other human relation training groups. The experimental groups met in 2 equal sections -- one on Monday evenings for 2-1/4 hours and one on Thursday evenings for the same length of time. Both groups had the same facilitator (leader). The raw data from both groups were pooled to form 1 experimental group.

Objectives of Educational Psychology 517

A communication skills approach for improving interpersonal relationships developed by John Wallen (unpublished a, b), was used in the group sessions.

The objectives were divided into 2 main goals -- to understand the other as a person, and to help others understand you as a person. Three main techniques were used. These were summarized by John Wallen (unpublished, a):

1. PARAPHRASE: Stating in your own way what the other's remark conveys to you.

Examples: "Is this ... (statement) ... an accurate understanding of your idea?"

"Would this be an example of the point you make? ... (then stating a specific example)."

2. BEHAVIOR DESCRIPTION: Reporting specific, observable actions of others without making accusations or generalizations about their motives, personality or character traits.

Examples: "That's the third time you have said you agreed with a statement of mine and then added 'but' and expressed agreement with the opposite."

"Jim and Harry have done nearly all the talking and the rest of us have said very little."

3. DESCRIPTION OF FEELINGS: Specifying or identifying feelings by name, simile, figure of speech, or action urge.

Describing your own feelings: Reporting your own inner state as explicitly as you can -- making sure the statement indicates the feelings are in you.

Examples: "I feel ... embarrassed." (naming)
 ... like a tiny frog in a huge pond." (simile)
 ... like hugging you." (action urge)
 "I just swallow a bushel of spring sunshine." (figure of speech)
 "I'm very fond of you. I care about you." (naming)

Perception check: Describing what you perceive to be the other's inner state in order to check whether you do understand what he feels.

Examples: "You look like you felt hurt by my comment. Did you?"
 "I get the impression you'd like to change the subject. Is that accurate?"
 "You seem to be feeling more at home now."

The theory for the improvement of communication skills was derived from the Interpersonal Gap (John Wallen, unpublished, b); with the emphasis on the process and inherent difficulties in the transfer of accurate data from one person to another, and some ideas as to

how these difficulties can be surmounted. The process of communication involves accurate encoding, transfer and decoding of information before it can be called "communication." Part of the breakdown in communication can be traced to a breakdown in any one of the coding areas.

PROCESSING OF RAW DATA

Before any of the data could be analysed, they had to be converted into a usable form.

The Q-sort data underwent several different manipulations. First, all 6 possible correlations -- prereal-preideal (RI), prereal-postreal (RR'), preideal-postideal (II') postreal-postideal (RI'), and postreal-preideal (R'I) -- were calculated between the 4 Q-sort distributions by a formula reported in Nunally (1959):

$$r = 1 - \frac{\sum d^2}{2Ns^2} \quad (\text{p. 343})$$

Secondly, the distributions were all compared against the standardized distribution which can be found in Dymond (1954) and an adjustment score was calculated. After this the correlations were tested for significance of relationship. Thirdly, in item movement was calculated for 4 of the correlations. This computation was simply the sum of categories moved in going from one distribution to the other.

Tabular forms of the results for the correlations, conversion to Fisher's z (Ferguson, 1966), adjustment scores, and item movement scores can be found in Appendices C, D, E and F respectively. The item comprising Dymond's standardized distribution are listed in

Appendix G.

At this point, means variances, standard deviations, analyses of variance and analyses of covariance were calculated for all variables (Winer, 1962).

The FIRO-B data were analysed in much the same manner as the Q-sort data, with the exception that correlations were calculated on each sub-scale for the total group, and the resulting scores were converted to Fisher's z . These converted scores were then summed and the means, variances, and standard deviations were calculated. A test of significance was made on the differences in means (Ferguson, 1966).

A listing of the FIRO-B raw data can be found in Appendix H.

CHAPTER IV

RESULTS

Four hypotheses were developed to examine the research problems defined in this thesis. This chapter will be divided into four major sub-divisions; one for each hypothesis, and all relevant data will be presented in that section. The tables presented in Chapter IV represent only the analysed data. The raw data and the results of the preliminary manipulations are tabulated in the Appendices.

Hypothesis 1

Hypothesis 1 stated:

There will be a significant difference in discrepancy between the group taking Educational Psychology 517 (T-groups) and the group taking Educational Psychology 570 (a regular graduate-level course), as measured by the Q-sort.

This prediction was tested in two forms. First, all correlations were converted to Fisher's z , and the converted RI correlations were tested by analysis of variance in a 2 by 2 factorial design; treatment groups by pre- posttest. An analysis of covariance was then performed.

Secondly, the treatment groups were compared against changes in the real self (RR' correlation) and changes in the ideal self (II' correlation) by means of analyses of variance and covariance.

The means of the converted correlations can be found in Table II while the results of the analyses of variance and covariance can be found in Tables III and IV.

TABLE II
SUMMARY OF CONVERTED CORRELATION DATA

Group	Correlation converted to Fisher's z					
	RI	RR'	II'	R'I'	RI'	R'I
Experimental mean	.493	.469	.617	.738	.425	.469
Control mean	.735	.730	.590	.944	.626	.525

(Note: primes indicated post measures in all references.)

It was found that in no case could differences be accepted at the .05 level of significance and, therefore, Hypothesis 1 was rejected in its entirety. The test results approached this level for the RI - R'I' analysis for between treatment and between time differences (both .08), but when the original means were adjusted, the analysis of covariance showed no difference due to treatment.

When dealing with the real changes and the ideal changes, the analysis of variance suggested an interaction between the variables treatment and concept. An examination of the means showed that for the treatment group the real changed more than the ideal, as hypothesized, and that for the control group the opposite was the case. This, however, could be accepted as a non-chance difference at the .84 level of confidence -- somewhat short of the .95 level needed for acceptance. An analysis of covariance revealed a difference due to treatment acceptable at the .82 level of confidence.

TABLE III

ANALYSES OF VARIANCE FOR Q-SORT CORRELATIONS

RI - R'I'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.950	1	0.950	3.176	0.079
Between times	0.976	1	0.976	3.260	0.075
Interaction	0.006	1	0.006	0.020	0.887
Error	22.145	74	0.299		
Total	24.077	77			

RR' - II'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.258	1	0.258	1.306	0.257
Between concepts	0.000	1	0.000	0.001	0.975
Interaction	0.395	1	0.395	2.001	0.161
Error	14.616	74	0.196		
Total	15.269	77			

TABLE IV
ANALYSES OF COVARIANCE FOR Q-SORT CORRELATIONS

RI - R'I'

Source of Variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.103	1	0.103	0.065	0.800
Error	6.964	35	0.199		
Total	6.976	36			
Adjusted Means:					
	Experimental		0.818		
	Control		0.856		

RR' - II'

Source of Variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.254	1	0.254	1.847	0.183
Error	4.821	35	0.138		
Total	6.977	36			
Adjusted Means:					
	Experimental		0.685		
	Control		0.514		

Hypothesis 2

This hypothesis stated:

There will be differences between the groups on the FIRO-B measure in the affection and control dimensions.

Table V represents a summary of the pre- posttest correlations on the sub-scales of the FIRO-B, converted to Fisher's z scores. A Z score was computed for each sub-scale to test the difference in z means for significance, according to the following formula:

$$Z = \frac{z_1 - z_2}{\sqrt{(1/N_1 - 3) + (1/N_2 - 3)}} \quad \text{(Ferguson, 1966)} \\ \text{(p. 188)}$$

TABLE V

A SUMMARY OF FIRO-B CONVERTED CORRELATION DATA

Group	e^I	w^I	e^C	w^C	e^A	w^A
Experimental means (n=20)	.952	.885	.728	.806	.494	.818
Control means (n=18)	.429	.908	.261	.586	.769	.665
Z scores	1.482	.065	1.318	.621	.907	.431

(Note: A Z score of 1.96 is needed for significance at the .05 level.)

No significant differences were found between the pre- and posttest scores.

On the analysis of variance of raw scores, no differences were significant at the .05 level but the differences on the expressed affection dimension could be accepted at the .92 level of confidence as differences between times and at the .89 level for differences between groups. With the adjusted means, the analysis of covariance showed there to be almost no difference due to treatment. Only on one sub-scale did the analysis of covariance show any differences that approached significance. An examination of the means showed a gain in mean on the wanted control area which could be accepted at the .93 level of confidence for the experimental group. The 6 analyses of variance and 6 analyses of covariance are presented in Tables VI to XI.

Hypothesis 3

The third hypothesis was:

There is a significant relationship between self-concept congruence and adjustment.

Four correlations were calculated between adjustment and self-concept correlation. This was done for the experimental, control and total group. The results are summarized in table XII.

The correlations were tested for significance of relationship. Significance was found only in the relationship of the real adjustment score to self-concept congruence score at the posttest time. For the experimental group, Hypothesis 3 could be accepted at the .001 level of significance; for the control group at the .05 level; and for the combined group at the .01 level.

These correlations were converted into Fisher's z and the differences were tested for significance using tests for correlated and uncorrelated

TABLE VI
ANALYSES OF VARIANCE FOR FIRO-B INCLUSION

Expressed (eI)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	9.807	1	9.807	2.558	0.114
Between times	1.867	1	1.867	0.487	0.487
Interaction	0.025	1	0.025	0.006	0.936
Error	283.694	74	3.844		
Total	295.393	77			

Wanted (wI)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	7.012	1	7.012	0.735	0.394
Between times	0.107	1	0.107	0.011	0.916
Interaction	3.422	1	3.422	0.359	0.612
Error	706.250	74	9.544		
Total	716.791	77			

TABLE VII

ANALYSES OF COVARIANCE FOR FIRO-B INCLUSION

Expressed (e_I)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	1.109	1	1.109	0.473	0.496
Error	82.102	35	2.346		
Total	83.211	36			
Adjusted Means:	Experimental		4.493		
	Control		4.841		

Wanted (w_I)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	4.547	1	4.547	0.760	0.389
Error	209.422	35	5.983		
Total	213.969	36			
Adjusted Means:	Experimental		3.571		
	Control		2.866		

TABLE VIII
ANALYSES OF VARIANCE FOR FIRO-B CONTROL

Expressed (e^C)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	3.289	1	3.289	0.669	0.420
Between times	0.002	1	0.002	0.000	0.982
Interaction	0.844	1	0.844	0.172	0.680
Error	363.656	74	4.914		
Total	367.792	77			

Wanted (w^C)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.042	1	0.042	0.010	0.919
Between times	2.140	1	2.140	0.523	0.472
Interaction	7.140	1	7.140	1.747	0.191
Error	303.028	74	4.095		
Total	312.351	77			

TABLE IX
ANALYSES OF COVARIANCE FOR FIRO-B CONTROL

Expressed (e^C)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.242	1	0.242	0.084	0.773
Error	100.459	35	2.870		
Total	100.701	36			
Adjusted Means:	Experimental		3.024		
	Control		2.862		

Wanted (w^C)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	9.614	1	9.614	3.582	0.067
Error	93.949	35	2.684		
Total	103.564	36			
Adjusted Means:	Experimental		5.219		
	Control		4.201		

TABLE X
ANALYSIS OF VARIANCE FOR FIRO-B AFFECTION

Expressed (e^A)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	13.600	1	13.600	2.629	0.109
Between times	16.212	1	16.212	3.133	0.080
Interaction	6.264	1	6.264	1.211	0.275
Error	382.872	74	5.174		
Total	418.947	77			

Wanted (w^C)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	7.336	1	7.336	1.393	0.242
Between times	2.250	1	2.250	0.427	0.516
Interaction	0.037	1	0.037	0.007	0.933
Error	389.811	74	5.268		
Total	399.432	77			

TABLE XI
ANALYSES OF COVARIANCE FOR FIRO-B AFFECTION

Expressed (e^A)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	3.543	1	3.543	0.709	0.406
Error	174.992	35	5.000		
Total	178.536	36			
Adjusted Means:	Experimental		3.887		
	Control		3.237		

Wanted (w^A)

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	0.177	1	0.177	0.050	0.824
Error	122.913	35	3.512		
Total	123.089	36			
Adjusted Means:	Experimental		4.908		
	Control		5.046		

TABLE XII
CORRELATIONS BETWEEN ADJUSTMENT AND SELF-CONCEPT CONGRUENCE

Group	R - RI	R' - R'I'	I - RI	I' - R'I'
Experimental	.080	.601***	-.166	.169
Control	.272	.473*	.075	.233
Total	.211	.504**	-.004	.219

*** Significant at the .001 level

** Significant at the .01 level

* Significant at the .05 level

means where appropriate.

No differences significant at the .05 level were discovered, but a direction was not postulated so this test was not crucial to the acceptance of the hypothesis.

Hypothesis 4

This hypothesis stated:

There will be a significant improvement in both the real and ideal selves on the Q-sort measure as a result of human relations training.

An analysis of variance showed a difference between groups that was significant at the .0035 level for changes in the real self, however, an analysis of covariance made it evident this difference was not due to treatment, but to an original difference in groups.

Analyses of variance and covariance for changes in ideal self showed no significant changes due to treatment.

A summary of results can be found in Tables XIII and XIV.

TABLE XIII
ANALYSES OF VARIANCE FOR Q-SORT ADJUSTMENT SCORES

E - R'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	748.709	1	748.709	9.809	0.0035
Between times	1.933	1	1.933	0.253	0.874
Interaction	0.091	1	0.091	0.001	0.972
Error	5648.094	74	76.326		
Total	6398.828	77			

I - I'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	91.705	1	91.705	1.174	0.282
Between times	0.716	1	0.716	0.009	0.924
Interaction	1.769	1	1.769	0.023	0.881
Error	5780.789	74	78.119		
Total	5874.980	77			

TABLE XIV
ANALYSES OF COVARIANCE FOR Q-SORT ADJUSTMENT SCORES

R - R'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	80.883	1	80.883	1.418	0.242
Error	1996.303	35	57.037		
Total	2077.286	36			
Adjusted Means:	Experimental		45.241		
	Control		48.344		

I - I'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	23.440	1	23.440	0.291	0.593
Error	2817.981	35	80.514		
Total	2841.421	36			
Adjusted Means:	Experimental		51.695		
	Control		53.284		

The analysis of item movement was used only to investigate the nature of the item shift between any two correlations. A list of means for the item-category movement can be found in Table XV. If the means are divided by 100 (the number of items per distribution), an average movement in categories per item is derived for each correlation.

An analysis of variance and covariance showed no differences significant at the .05 level, however the analysis of variance showed differences between treatments acceptable at the .09 level of significance and between times differences acceptable at the .06 level for the amount of item-category movement for the pre- post-RI correlations. The analysis of covariance revealed these differences to be differences in the original groups.

When the RR' and II' concepts were set against treatment groups, an analysis of variance revealed an interaction significant at the .12 level for item movement. The covariance analysis showed these differences due to treatment acceptable at the .10 level of significance. An examination of the means, however, showed the item movement took the same direction as the discrepancy; as the discrepancy increased or decreased, so did the item movement.

The analysis of variance and covariance results are presented in Tables XVI and XVII. In all cases, there was more activity in the experimental group than in the control group, although not to a significant level. Shutz would term this direction to be "healthy".

TABLE XV
SUMMARY OF ITEM MOVEMENT

Group	RI	$R - R'$	$I - I'$	$R' - I'$
Experimental	122.800	127.600	133.300	95.700
Control	97.556	104.333	119.556	83.778

Note: Numbers represent average item-category shift per distribution correlations.

TABLE XVI
ANALYSES OF VARIANCE FOR ITEM MOVEMENT

RI - R'I'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	6543.289	1	6543.289	2.965	0.089
Between times	7915.229	1	7915.229	3.587	0.062
Interaction	840.702	1	840.702	0.381	0.539
Error	163280.956	74	2206.499		
Total	178580.176	77			

RR' - II'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	1370.737	1	1370.737	0.838	0.363
Between concepts	4.027	1	4.027	0.002	0.961
Interaction	4128.450	1	4128.450	2.525	0.116
Error	120973.444	74	1634.776		
Total	126476.660	77			

TABLE XVII
ANALYSES OF COVARIANCE FOR ITEM MOVEMENT

RI - R'I'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	14.616	1	14.616	0.008	0.929
Error	64243.818	35	1835.538		
Total	64258.434	36			
Adjusted Means:	Experimental		89.443		
	Control		90.731		

RR' - II'

Source of variation	SS	DF	MS	F RATIO	PROB.
Between groups	3134.494	1	3134.494	2.802	0.103
Error	39150.720	35	1118.592		
Total	42285.213	36			
Adjusted Means:	Experimental		107.304		
	Control		126.218		

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

The purpose of this study was to investigate the relationship between self-concept change and human relations training.

The theory of the self concept and its modification due to counselling, and the relationship of the self concept to adjustment was developed by Carl Rogers (1951) and investigated by Butler and Haigh (1954) and Dymond (1954), as well as many others. This study was, in part, a replication of these earlier studies.

Four hypotheses were developed to investigate the problem.

1. There will be a significant difference in self-concept discrepancy between the group taking Educational Psychology 517 (T-groups) and the group taking Educational Psychology 571 (a regular graduate level course), as measured by the Q-sort.
2. There will be differences between the groups on the FIRO-B measure in the affection and control dimensions.
3. There is a significant relationship between the self-concept correlation and adjustment.
4. There will be significant improvements in both the ideal and real selves on the Q-sort measure as a result of human relations training.

SUMMARY OF FINDINGS

The results of the study were largely inconclusive. The only significant results were the partial confirmation of Hypothesis 3; which postulated a relationship between the self-ideal correlation and adjustment. There was a significant relationship between the real concept adjustment and self-ideal correlation at the posttest level for both the experimental and control groups, and none for the pre-test situation or the ideal concept adjustment and self-ideal correlation score.

CONCLUSIONS

In accordance with the results obtained in this study, the self concept does not appear much altered as a function of human relations training.

Shutz and Allen (1966) discussed the results of pre- and posttest differences on the FIRO-B. Because of the nature of the FIRO-B, pre-posttest measures are simple correlations and therefore do not indicate any direction of change -- simply magnitude. Shutz and Allen take the lower correlations for the experimental group to mean this group underwent more change; and this dynamicism is taken to be a healthy sign. In opposition, this study indicated somewhat larger correlations for the experimental group, although not significantly so.

It can be concluded there is a significant relationship between the real concept adjustment and self-ideal correlation, although the

gains from pre- to posttest are not significant between groups. The experimental group gained more in real concept adjustment as hypothesized, but not significantly so. The gain for the experimental group is in the expected direction but the gain for the control group cannot be explained on the basis of treatment.

DISCUSSION AND IMPLICATIONS

The results of this study are not at variance with some studies reported in the literature, although they do not enjoy the same significance of results as Rogers, Butler and Haigh and others do. There are several possible explanations:

1. Perhaps the treatment actually did not produce changes. Then, of course, the results are as they should be.
2. The instruments may not be sensitive enough to detect changes, particularly with these degrees of freedom.
3. Since all the information is based on self-report, there could possibly be a systematic bias due to the high degree of subjectivity.
4. It is possible that the instruments do not measure self-concept changes as they are expected to, but instead some variable which at this time remains undetected. This variable might be, as suggested, mood or perhaps social desirability.
5. The results could be explained on the basis of varying involvement on the part of the subject in the testing process.

6. The large number of variables makes the investigation of this type of phenomena very difficult, especially when the population sample is small. With so few degrees of freedom, it is practically necessary for the two samples to score at opposite extremes of the measure, in order that the differences be significant.

An observation that can be made is that both the self concept and sensitivity training have tremendous logical and emotional appeal. Perhaps this is what drives researchers to try and try again in the face of such diversified results.

SUGGESTIONS FOR FURTHER RESEARCH

It was hoped this study would uncover some relationship between self-concept change and human relations training as there is always need for methods to modify human behavior. It may very well be the relationship actually exists, but the instruments are not capable of identifying it. This would suggest evidence for the development of instruments to be used specifically with sensitivity training groups. Such a measure would contain some possibility of objective rating, to broaden the scope of the measurement. The instrument should also be easy to use, out of necessity, and should not be fatiguing to the subjects.

An attempt should be made to define terms, situations and variables so that various experiments can be replicated. As it stands, most studies procede according to their own definition of terms and variables. One of the difficulties in human relations training is

obtaining comprehensive descriptions of the trainees. The variations in results may be simply a function of differences in people and may very well overlay some broader relationship. At this point, the trainee variable cannot be controlled very well.

There is some suggestion for the sensitivity group to be used as the evaluative instrument as well as the treatment procedure. This would have implications for both therapy and learning in a school situation.

In a narrower sense, the differences between the original groups for this study could be investigated. There was at least one case in which there were significant differences in the starting groups, and several other indications this was so. Since all subjects were in the counselling program, the difference must be due to some outside factors. Perhaps there is a necessity to return to the pre- posttest type of study in the investigation of both sensitivity training and self concept.

Special Note to Q-sort Users

There are some group data-gathering procedures which are discovered only by experience. First, allow plenty of room for the subjects to spread their Q-sort cards. Administer preliminary instructions before handing out the cards and do not allow the second sorting before everyone is finished the first sorting.

Insist on a specific sorting procedure; that is, a specific way that the cards are sorted. For instance, they may be sorted into Z

piles and then from the end to the middle, or vice-versa.

Avoid working with these by mail; try to get subjects that are not fatigued.

It is hoped this study, in some way, has added to the general body of knowledge available in Educational Psychology, or at least has stimulated some further research that will eventually enable the counsellor to be of more assistance to his client.

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APPENDIX A

TABLE XVIII

ITEMS COMPRISING THE S10 Q-SORT

1. I feel uncomfortable while talking with someone.
2. I put on a false front.
3. I am a competitive person.
4. I make strong demands on myself.
5. I often kick myself for the things I do.
6. I often feel humiliated.
7. I doubt my sexual powers.
8. I am much like the opposite sex.
9. I have a warm emotional relationship with others.
10. I am an aloof reserved person.
11. I am responsible for my troubles.
12. I am a responsible person.
13. I have a feeling of hopelessness.
14. I live largely by other people's values and standards.
15. I can accept most social values and standards.
16. I have few values and standards of my own.
17. I have a hard time controlling my sexual desires.
18. It's difficult to control my aggression.
19. Self control is no problem to me.
20. I am often down in the dumps.
21. I am really self-centered.
22. I usually like people.
23. I express my emotions freely.
24. Usually in a mob of people I feel a little bit alone.
25. I want to give up trying to cope with the world.
26. I can live comfortably with the people around me.
27. My hardest battles are with myself.
28. I tend to be on my guard with people who are somewhat more friendly than I had expected.
29. I am optimistic.
30. I am just sort of stubborn.
31. I am critical of people.
32. I usually feel driven.
33. I am liked by most people who know me.
34. I have an underlying feeling that I'm not contributing enough to life.
35. I am sexually attractive.
36. I feel helpless.
37. I can usually make up my mind and stick to it.
38. My decisions are not my own.
39. I often feel guilty.
40. I am a hostile person.
41. I am contented.
42. I am disorganized.
43. I feel apathetic.
44. I am poised.
45. I just have to drive myself to get things done.
46. I often feel resentful.
47. I am impulsive
48. It's important for me to know how I seem to others.
49. I don't trust my emotions.

APPENDIX A (continued)

47. I am impulsive.
48. It's important for me to know how I seem to others.
49. I don't trust my emotions.
50. It is pretty tough to be me.
51. I am a rational person.
52. I have the feeling I'm just not facing things.
53. I am tolerant.
54. I try not to think about my problems.
55. I have an attractive personality.
56. I am shy.
57. I need somebody else to push me through on things.
58. I feel inferior.
59. I am no one. Nothing really seems to be me.
60. I am afraid of what other people think about me.
61. I am ambitious.
62. I despise myself.
63. I have initiative.
64. I shrink from facing a crisis of difficulty.
65. I just don't respect myself.
66. I am a dominant person.
67. I take a positive attitude toward myself.
68. I am assertive.
69. I am afraid of a full-fledged disagreement with a person.
70. I can't seem to make up my mind one way or another.
71. I am confused.
72. I am satisfied with myself.
73. I am a failure.
74. I am likeable.
75. My personality is attractive to the opposite sex.
76. I am afraid of sex.
77. I have a horror of failing in anything I want to accomplish.
78. I feel relaxed and nothing really bothers me.
79. I am a hard worker.
80. I feel emotionally mature.
81. I am not accomplishing.
82. I am naturally nervous.
83. I really am disturbed.
84. All you have to do is just insist with me and I give in.
85. I feel insecure within myself.
86. I have to protect myself with excuses, with rationalizing.
87. I am a submissive person.
88. I am intelligent.
89. I feel superior.
90. I feel hopeless.
91. I am self-reliant.
92. I often feel aggressive.
93. I am inhibited.
94. I am different from others.
95. I am unreliable.
96. I understand myself.
97. I am a good mixer.
98. I feel adequate.

APPENDIX A (continued)

- 99. I am worthless.
- 100. I dislike my own sexuality.

APPENDIX B

For each statement below, decide which of the following answers best applies to you. Place the number of the answer in the box at the left of the statement. Please be as honest as you can.

1. usually 2. often 3. sometimes 4. occasionally 5. rarely 6. never

- | | |
|---|---|
| <input type="checkbox"/> 1. I try to be with people. | <input type="checkbox"/> 9. I try to include other people in my plans. |
| <input type="checkbox"/> 2. I let other people decide what to do. | <input type="checkbox"/> 10. I let other people control my actions. |
| <input type="checkbox"/> 3. I join social groups. | <input type="checkbox"/> 11. I try to have people around me. |
| <input type="checkbox"/> 4. I try to have close relationships with people. | <input type="checkbox"/> 12. I try to get close and personal with people. |
| <input type="checkbox"/> 5. I tend to join social organizations when I have an opportunity. | <input type="checkbox"/> 13. When people are doing things together I tend to join them. |
| <input type="checkbox"/> 6. I let other people strongly influence my actions. | <input type="checkbox"/> 14. I am easily led by people. |
| <input type="checkbox"/> 7. I try to be included in informal social activities. | <input type="checkbox"/> 15. I try to avoid being alone. |
| <input type="checkbox"/> 8. I try to have close, personal relationships with people. | <input type="checkbox"/> 16. I try to participate in group activities. |

For each of the next group of statements, choose one of the following answers:

1. most people 2. many people 3. some people 4. a few people 5. one or two people 6. nobody

- | | |
|--|---|
| <input type="checkbox"/> 17. I try to be friendly to people. | <input type="checkbox"/> 23. I try to get close and personal with people. |
| <input type="checkbox"/> 18. I let other people decide what to do. | <input type="checkbox"/> 24. I let other people control my actions. |
| <input type="checkbox"/> 19. My personal relations with people are cool and distant. | <input type="checkbox"/> 25. I act cool and distant with people. |
| <input type="checkbox"/> 20. I let other people take charge of things. | <input type="checkbox"/> 26. I am easily led by people. |
| <input type="checkbox"/> 21. I try to have close relationships with people. | <input type="checkbox"/> 27. I try to have close, personal relationships with people. |
| <input type="checkbox"/> 22. I let other people strongly influence my actions. | |

For each of the next group of statements, choose one of the following answers:

1. most
people

2. many
people

3. some
people

4. a few
people

5. one or two
people

6. nobody

☐ 28. I like people to invite me to things.

☐ 35. I like people to act cool and distant toward me.

☐ 29. I like people to act close and personal with me.

☐ 36. I try to have other people do things the way I want them done.

☐ 30. I try to influence strongly other people's actions.

☐ 37. I like people to ask me to participate in their discussions.

☐ 31. I like people to invite me to join in their activities.

☐ 38. I like people to act friendly toward me.

☐ 32. I like people to act close toward me.

☐ 33. I try to take charge of things when I am with people.

☐ 39. I like people to invite me to participate in their activities.

☐ 34. I like people to include me in their activities.

☐ 40. I like people to act distant toward me.

For each of the next group of statements, choose one of the following answers:

1. usually

2. often

3. sometimes

4. occasionally

5. rarely

6. never

☐ 41. I try to be the dominant person when I am with people.

☐ 48. I like people to include me in their activities.

☐ 42. I like people to invite me to things.

☐ 49. I like people to act close and personal with me.

☐ 43. I like people to act close toward me.

☐ 50. I try to take charge of things when I'm with people.

☐ 44. I try to have other people do things I want done.

☐ 51. I like people to invite me to participate in their activities.

☐ 45. I like people to invite me to join their activities.

☐ 52. I like people to act distant toward me.

☐ 46. I like people to act cool and distant toward me.

☐ 53. I try to have other people do things the way I want them done.

☐ 47. I try to influence strongly other people's actions.

☐ 54. I take charge of things when I'm with people.

NAME

Last

First

Middle

FACULTY
OR
SCHOOL

GRADE

Years

YEAR
OR
GRADE

☐ Male ☐ Female

DATE

Day

Month

Year

Indicate response by placing a mark between the guidelines as shown in the example. Use HB pencil. Don't make marks longer than guidelines.

Example

Example

I. D. NUMBER

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

1]	1	2	3	4	5	6	28]	1	2	3	4	5	6
2]	1	2	3	4	5	6	29]	1	2	3	4	5	6
3]	1	2	3	4	5	6	30]	1	2	3	4	5	6
4]	1	2	3	4	5	6	31]	1	2	3	4	5	6
5]	1	2	3	4	5	6	32]	1	2	3	4	5	6
6]	1	2	3	4	5	6	33]	1	2	3	4	5	6
7]	1	2	3	4	5	6	34]	1	2	3	4	5	6
8]	1	2	3	4	5	6	35]	1	2	3	4	5	6
9]	1	2	3	4	5	6	36]	1	2	3	4	5	6
10]	1	2	3	4	5	6	37]	1	2	3	4	5	6
11]	1	2	3	4	5	6	38]	1	2	3	4	5	6
12]	1	2	3	4	5	6	39]	1	2	3	4	5	6
13]	1	2	3	4	5	6	40]	1	2	3	4	5	6
14]	1	2	3	4	5	6	41]	1	2	3	4	5	6
15]	1	2	3	4	5	6	42]	1	2	3	4	5	6
16]	1	2	3	4	5	6	43]	1	2	3	4	5	6
17]	1	2	3	4	5	6	44]	1	2	3	4	5	6
18]	1	2	3	4	5	6	45]	1	2	3	4	5	6
19]	1	2	3	4	5	6	46]	1	2	3	4	5	6
20]	1	2	3	4	5	6	47]	1	2	3	4	5	6
21]	1	2	3	4	5	6	48]	1	2	3	4	5	6
22]	1	2	3	4	5	6	49]	1	2	3	4	5	6
23]	1	2	3	4	5	6	50]	1	2	3	4	5	6
24]	1	2	3	4	5	6	51]	1	2	3	4	5	6
25]	1	2	3	4	5	6	52]	1	2	3	4	5	6
26]	1	2	3	4	5	6	53]	1	2	3	4	5	6
27]	1	2	3	4	5	6	54]	1	2	3	4	5	6

APPENDIX C

TABLE XIX

CORRELATIONS DERIVED FROM THE Q-SORT

Experimental Group

Identity	RI	RR'	II'	R'I'	RI'	R'I
EAM	.134	.028	-.020	.249	.119	-.130
EBF	.182	.162	.708	.834	.182	.557
ECM	.290	.854	.866	.723	.751	.747
EDM	.182	.221	.206	.462	.170	.182
EEF	.944	.771	.798	.929	.787	.771
EFF	.844	.763	.640	.593	.514	.715
EGF	.146	.573	.787	.209	.364	.059
EHF	.767	-.621	-.585	.840	-.490	-.628
EIF	.292	.798	.257	.850	.787	.324
EJM	.862	.625	.826	.700	.787	.620
EKM	.704	.751	.893	.719	.680	.672
ELM	.113	.439	.285	.680	.589	.257
EMF	.277	.265	.358	.206	.352	.285
ENM	.146	.470	.368	.134	.111	.375
EOF	.368	.360	.750	.411	.344	.320
EOP	.672	.731	.708	.731	.617	.644
EQM	.213	.099	.589	.478	.289	.332
ERF	.111	.178	.336	.162	.059	.043
ESM	.055	-.040	.486	.593	-.183	.217
ETM	.130	.154	.356	.838	.206	.443
CBF	.312	.166	.708	.858	.095	.723
CCF	.427	-.051	.229	.134	.067	.075
CDF	.518	.478	.217	.091	.095	.261
CFM	.755	.751	.599	.874	.743	.609
CGM	.099	.700	-.036	.688	.478	.020
CHM	.589	.688	.644	.656	.676	.581
CIM	.735	.719	.534	.621	.478	.660
CJM	.692	.543	.538	.834	.530	.648
CKM	.952	.763	.747	.988	.771	.743
CLF	.375	.802	.407	.711	.585	.249
CMM	.573	.621	.079	.229	.375	.364
CNM	.755	.708	.743	.628	.557	.735
COM	.368	.162	.352	.067	.455	.206
CPM	.225	.522	.833	.668	.466	.308
CQF	.229	.126	.273	.277	.403	.051
CRM	.735	.842	.727	.918	.854	.652
CSM	.984	.783	.771	.984	.779	.775
CTM	.403	.897	.407	.830	.810	.304

APPENDIX D

TABLE XX
 CONVERTED Q-SORT CORRELATIONS

Experimental Group

Identity	RI	RR'	II'	R'I'	RI'	R'I
EAM	.135	.028	-.020	.254	.119	-.131
EBF	.189	.164	.883	1.201	.189	.629
ECM	.299	1.270	1.317	.914	.975	.966
EDM	.184	.225	.209	.500	.172	.184
EEF	1.774	1.023	1.093	1.651	1.063	1.023
EFF	1.394	1.003	.748	.682	.569	.897
EGF	.147	.652	1.063	.212	.382	.059
EHF	1.013	-.727	-.670	1.214	-.536	.738
EIF	.301	1.093	.263	1.256	1.063	.336
EJM	1.302	.733	1.175	.867	1.063	.725
EKM	.875	.975	1.436	.909	.829	.812
ELM	.115	.471	.293	.829	.676	.263
EMF	.282	.271	.375	.209	.367	.293
ENM	.147	.510	.386	.135	.111	.394
EOF	.386	.377	.973	.437	.359	.332
EOP	.815	.931	.883	.931	.719	.756
EQM	.217	.099	.676	.521	.298	.345
ERF	.111	.180	.349	.163	.059	.043
ESM	.055	-.090	.531	.682	-.185	.220
ETM	.131	.155	.372	1.204	.209	.476
Means	.494	.470	.617	.738	.425	.469
Variance	.263	.242	.258	-.88	.193	.110
S.D.	.513	.492	.508	.432	.440	.332

APPENDIX D (continued)

Control Group

Identity	RI	RR'	II'	R'I'	RI'	R'I
CBF	.323	.168	.883	1.285	.095	.914
CCF	.459	-.051	.233	.135	.067	.075
CGF	.576	.531	.22	.091	.095	.262
CFM	.984	.975	.691	1.35	.957	.707
CGM	.099	.967	-.036	.844	.521	.020
CHM	.676	.834	.765	.768	.822	.664
CIM	.940	.906	.596	.727	.521	.793
CJM	.852	.607	.601	1.201	.590	.772
CKM	1.850	1.003	.966	2.565	1.023	.957
CLM	.394	1.105	.439	.890	.670	.254
CMM	.652	.727	.079	.233	.394	.382
CNM	.984	.883	.957	.738	.629	.940
COM	.386	.163	.367	.067	.491	.209
CPM	.229	.579	1.198	.807	.505	.319
CQF	.232	.127	.280	.248	.428	.051
CRM	.940	1.228	.922	1.576	1.270	.781
CSM	2.234	1.053	1.023	2.234	1.055	1.033
CTM	.428	1.457	.432	1.188	1.127	.314
Means	.735	.731	.590	.944	.626	.525
Variance	.308	.173	.128	.490	.128	.121
S.D.	.555	.413	.358	.700	.358	.347

APPENDIX E

TABLE XXI
ADJUSTMENT SCORES

Experimental Group

Identity	RI	RR'	II'	R'I'
EAM	33	47	13	8
EBF	50	51	50	53
ECM	46	56	49	57
EDM	51	51	55	58
EEF	53	56	53	53
EFF	46	52	49	51
EGF	31	57	28	58
EHF	14	6	46	54
EIF	52	60	52	57
EJM	53	55	57	57
EKM	42	49	45	56
ELM	42	55	46	48
EMF	57	47	52	54
EMN	27	50	29]	60
EOF	37	56	42	58
EOP	46	60	46	49
EQM	53	54	41	55
ERF	46	52	35	48
ESM	41	53	39	49
ETM	49	54	47	48

APPENDIX E (continued)

Control Group

Identity	RI	RR'	II'	R'I'
CBF	36	60	59	61
CCF	51	60	50	53
CDF	50	53	42	39
CFM	62	60	58	58
CGM	58	45	54	57
CHM	44	50	43	49
CIM	46	55	45	46
CJM	50	50	54	53
CKM	53	53	47	47
CLF	49	59	52	61
CMM	43	41	41	48
CNM	43	56	49	58
COM	44	45	39	54
CPM	53	56	51	55
CQF	46	54	53	52
CRM	52	54	53	58
CSM	57	59	54	54
CTM	57	54	57	59

APPENDIX F

TABLE XXII
MOVEMENT SCORES

Experimental Group

Identity	RI	RR'	II'	R'I'
EAM	160	178	172	150
EBF	154	160	84	32
ECM	72	58	56	96
EDM	152	150	162	106
EEF	28	76	72	28
EFF	58	82	96	108
EGF	162	106	66	142
EHF	60	220	224	36
EIF	140	68	142	68
EJM	52	90	66	82
EKM	94	80	48	82
ELM	164	128	142	96
EMF	132	154	132	148
ENM	174	122	128	162
EOF	124	132	84	134
EOP	84	78	88	60
EQM	150	160	108	126
ERF	168	154	142	152
ESM	166	190	124	74
ETM	162	166	130	32

APPENDIX F (continued)

Control Group

Identity	RI	RR'	II'	R'I'
CBF	140	160	80	58
CCF	114	178	144	154
CDF	100	122	152	160
CFM	36	76	96	50
CGM	164	92	190	86
CHM	116	100	104	96
CIM	80	88	124	64
CJM	70	112	114	46
CKM	18	86	86	6
CLF	122	74	128	64
CMM	100	112	172	158
CNM	72	90	76	76
COM	132	152	140	166
CPM	152	110	126	92
CQF	140	152	142	152
CRM	66	62	80	40
CSM	8	66	70	8
CTM	126	46	128	32

APPENDIX G

ADJUSTMENT SCORE ITEMS

Q-Sort Item No.	Statement	Q-Sort Item No.	Statement
	<i>Negative: Contribute to Score if Fall on "Unlike Me" Side (0-5)</i>		<i>Positive: Contribute to Score if Fall on "Like Me" Side (5-8)</i>
2.....	I put on a false front.	4.....	I make strong demands on my- self.
6.....	I often feel humiliated.	5.....	I often kick myself for the things I do.
7.....	I doubt my sexual powers.	9.....	I have a warm emotional rela- tionship with others.
13.....	I have a feeling of hopelessness.	11.....	I am responsible for my troubles.
16.....	I have few values and stand- ards of my own.	12.....	I am a responsible person.
18.....	It is difficult to control my ag- gression.	15.....	I can accept most social values and standards.
25.....	I want to give up trying to cope with the world.	19.....	Self-control is no problem to me.
28.....	I tend to be on my guard with people who are somewhat more friendly than I had expected.	22.....	I usually like people.
32.....	I usually feel driven.	23.....	I express my emotions freely.
36.....	I feel helpless.	26.....	I can usually live comfortably with the people around me.
38.....	My decisions are not my own.	27.....	My hardest battles are with myself.
40.....	I am a hostile person.	29.....	I am optimistic.
42.....	I am disorganized.	33.....	I am liked by most people who know me.
43.....	I feel apathetic.	35.....	I am sexually attractive.
49.....	I don't trust my emotions	37.....	I can usually make up my mind and stick to it.
50.....	It's pretty tough to be me.	41.....	I am contented.
52.....	I have the feeling that I am just not facing things.	44.....	I am poised.
54.....	I try not to think about my problems.	47.....	I am impulsive.
56.....	I am shy.	51.....	I am a rational person.
59.....	I am no one. Nothing seems to be me.	53.....	I am tolerant.
62.....	I despise myself.	55.....	I have an attractive person- ality.
64.....	I shrink from facing a crisis or difficulty.	61.....	I am ambitious.
65.....	I just don't respect myself.	63.....	I have initiative.
69.....	I am afraid of a full-fledged disagreement with a person.	67.....	I take a positive attitude toward myself.
70.....	I can't seem to make up my mind one way or another.	68.....	I am assertive.
71.....	I am confused.	72.....	I am satisfied with myself.
73.....	I am a failure.	74.....	I am likable.
76.....	I am afraid of sex.	75.....	My personality is attractive to the opposite sex.
77.....	I have a horror of failing in anything I want to accom- plish.	78.....	I am relaxed, and nothing real- ly bothers me.
83.....	I really am disturbed.	79.....	I am a hard worker.
84.....	All you have to do is just insist with me, and I give in.	80.....	I feel emotionally mature.
85.....	I feel insecure within myself.	88.....	I am intelligent.
86.....	I have to protect myself with excuses, with rationalizing.	91.....	I am self-reliant.
90.....	I feel hopeless.	94.....	I am different from others.
95.....	I am unreliable.	96.....	I understand myself.
99.....	I am worthless.	97.....	I am a good mixer.
100.....	I dislike my own sexuality.	98.....	I feel adequate.

APPENDIX H

TABLE XXIII
PRETEST FIRO-B RAW DATA

Experimental Group

Identity	e ^I	w ^I	e ^C	w ^C	c ^A	w ^A
EAM	3	1	5	6	5	9
EBF	6	3	0	6	4	5
ECM	8	6	9	4	3	6
EDM	2	0	1	1	4	3
EEF	7	4	4	5	4	4
EFF	1	0	1	3	4	5
EGF	1	0	1	6	1	0
EHF	7	7	2	7	3	6
EIF	5	6	2	2	3	4
EJM	5	1	1	4	3	6
EKM	5	5	3	2	7	8
ELM	5	2	2	1	8	6
EMF	4	0	0	3	3	4
EMN	1	3	8	1	0	5
EOF	6	6	2	7	6	7
EOP	7	3	1	4	4	3
EQM	5	3	3	3	3	5
ERF	9	6	5	6	6	8
ESM	6	0	2	9	4	5
ETM	0	0	1	2	1	1

APPENDIX H (continued)

Control Group

Identity	e^I	w^I	e^C	w^C	e^A	w^A
CBF	4	6	2	6	5	7
CCF	6	0	1	6	3	5
CDF	5	0	5	4	5	0
CFM	4	0	4	1	5	5
CGM	7	7	5	4	7	8
CHM	5	1	1	5	5	4
CIM	4	6	4	6	3	6
CJM	4	8	8	5	5	8
CKM	4	6	4	2	8	8
CLF	6	6	1	3	5	6
CMM	4	1	0	8	3	4
CNM	7	2	7	5	9	8
COM	6	5	2	6	2	5
CPM	7	5	4	5	4	6
CQF	5	1	2	6	8	8
CRM	7	9	1	3	8	7
CSM	5	0	4	4	3	1
CTM	6	6	4	5	6	6

TABLE XXIV

POSTTEST FIRO-B RAW DATA

Experimental Group

Identity	e ^I	w ^I	e ^C	w ^C	e ^A	w ^A
EAM	4	0	4	9	3	5
EBF	4	0	1	3	1	5
ECM	8	7	9	4	6	8
EDM	3	3	2	3	5	6
EEF	2	6	3	6	0	7
EFF	3	1	2	5	8	6
EGF	1	0	0	5	0	0
EHF	7	8	3	4	3	5
EIF	6	8	4	4	4	1
EJM	6	1	4	6	5	5
EKM	4	9	0	4	3	9
ELM	3	0	2	4	8	6
EMF	3	0	0	2	2	1
ENM	4	0	9	4	0	5
EOF	5	7	3	9	6	7
EQP	6	5	2	5	1	4
EQM	5	7	5	5	8	4
ERF	7	0	3	9	1	5
ESM	5	1	1	9	5	5
ETM	0	0	0	1	0	0

Control Group

Identity	e^I	w^I	e^C	w^C	e^A	$\frac{A}{w}$
CBF	6	7	3	4	1	6
CCF	5	0	3	5	3	4
CDF	1	0	2	3	3	1
CFM	4	0	5	1	0	5
CGM	6	6	5	4	3	5
CHM	7	0	2	6	4	4
CIM	4	3	5	4	2	3
CJM	3	6	1	5	7	7
CKM	7	0	3	1	7	4
CLF	5	5	0	6	2	4
CMM	3	0	3	4	1	0
CNM	6	7	5	5	8	7
COM	6	1	2	7	3	7
CPM	5	8	3	7	4	8
CQF	5	2	1	4	5	8
CRM	9	9	4	3	6	6
CSM	5	0	3	5	3	5
CTM	4	6	5	5	5	8

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